AMSAT News Service Weekly Bulletins
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SB SAT @ AMSAT $ANS-214.01
KITSAT STATUS REPORT

HR AMSAT NEWS SERVICE BULLETIN 214.01 FROM AMSAT HQ
SILVER SPRING, MD AUGUST 1, 1992 BID:$ANS-214.01
TO ALL RADIO AMATEURS BT

G0/K8KA Provides The Latest KITSAT-A Status Report

At 11:30 French Guiana time Monday 27 July, the microsatellites KITSAT-A and S80T were bolted to the Ariane Structure for Auxiliary Payloads (ASAP), the ASAP was then sealed in a transport container, and the KITSAT/Surrey team started to relax. (Of course, because the campaign went so smoothly, we had already relaxed for two days on the beach over the weekend). This week the ASAP will be placed into the vehicle equipment bay, and the main customer (TOPEX/POSEIDON) will be mated to the assembly. One person will stay behind to remove the solar panel protective covers just before the composite of main passenger and microsatellites are encapsulated in the rocket fairing.

Our last act before going onto the ASAP was to make a "final-final" check of the RF links to confirm that all was ready. The campaign went very smoothly, and no anomalies were noted during the final preparation and checkout of KITSAT-A. Lest any of the more superstitious readers fear that the campaign went "too smoothly," there were some heart stopping moments involving the KITSAT tie bolts, the S80T antennas and, at the last minute while bolting KITSAT to the ASAP. (Indeed, the S80T VHF antennas didn't arrive in Kourou until today, but the Arianespace mechanical shop made some from some spare material we had brought along.)

The team is now packing the ground support equipment for shipping. At our final meeting tomorrow morning, we face the qualification specialists from JPL responsible for the safety of TOPEX/POSEIDON. If we can convince them that our tests were thorough and positive, then our work here will be done.

The MATRA Espace team -- who are the prime contractor for the S80T satel-
lite (a non-amateur microsatellite built at Surrey) -- have promised the KITSAT team a dinner at a local "endangered" species restaurant, and we're and planning a long hard day at the beach for tomorrow. The only cloud on the horizon is that the series of scheduled Air France strikes here in French Guiana may resume before we get our outbound flight.

The launch of V-52 carrying KITSAT-A is scheduled to take place on 10 August at 23:45 UTC. Further detailed information, including the KITSAT-A fre-
quencies and preliminary Keplerian elements, will be made available as soon as possible.

73,
Jeff Ward (G0/K8KA).

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SB SAT @ AMSAT $ANS-214.02
F5MIR TO OPERATE FROM MIR

HR AMSAT NEWS SERVICE BULLETIN 214.02 FROM AMSAT HQ
SILVER SPRING, MD AUGUST 1, 1992 BID:$ANS-214.02
TO ALL RADIO AMATEURS BT

F5MIR To Operate From The Mir Space Station According To G3IOR

G3IOR reported this week that French cosmonaut Michel Tognini will be operating as F5MIR. Michel lifted off this week in a Soyuz TM-15 spacecraft with two other Russian cosmonauts. The other Russian cosmonauts are Anatoly Solovyov (U6MIR) and Sergei Avdeyev (U3MIR). It is expected that Michel will return around August 10, 1992. Watch for Michel on the Mir downlink freqency of 145.550 MHz.

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SB SAT @ AMSAT $ANS-214.03
AO-16'S OBC CRASHES THIS WEEK

HR AMSAT NEWS SERVICE BULLETIN 214.03 FROM AMSAT HQ
SILVER SPRING, MD AUGUST 1, 1992 BID:$ANS-214.03
TO ALL RADIO AMATEURS BT

AO-16's On-Board Computer (OBC) Crashes This Week

Around 01:30 UTC 27-July-1992 -- after 317 days and 21 hours of continuous and reliable operation of the file server system -- AO-16's on board computer (OBC) operating system detected an error in the RAM based spacecraft software and the OBC automatically commanded the spacecraft to "safe" itself by shutting off all non-essential subsystems and switching OBC operation to the ROM firmware. Ground controllers detected the problem at 02:00 UTC and commanded the spacecraft's straight PSK transmitter back on at 03:45 UTC. The reason for the OBC reset was quickly identified and by 01:55 UTC 29-July-1992 the command team had reloaded and re-started the spacecraft's operating system and housekeeping software.

Reloading of the file server system (BBS) software has been put on hold since a release of the an upgraded version of this software is anticipated to occur within the next 10 to 14 days. The AO-16 Command Team wishes to apologize to our users for this service outage. However, we believe the inconvenience of this outage will be more than offset by the enhanced features of the upgraded file server system software. This upgraded will bring AO-16's file server capabilities to the same level as those currently enjoyed by UO-22 users with the most noticeable enhancements being those of directory broadcasts and the ability to use the latest, semi-automated version of the PG ground station software. Complete details will appear in a future ANS bulletin.

During the file server system outage, AO-16 command stations will be performing engineering tests on several of the spacecraft's subsystems. Switching between the straight PSK and raised cosine PSK transmitters, occasional operation of the S-Band transmitter, and frequent adjustments to the transmitter power levels may be observed. Users interested in observing these tests should monitor the ASCII text block in the telemetry frames for additional information.

[The AMSAT News Service (ANS) would like to thank WB9ANQ for submitting this bulletin item.]

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SB SAT @ AMSAT $ANS-214.04
AO-13 STATUS REPORT FROM G3RUH

HR AMSAT NEWS SERVICE BULLETIN 214.04 FROM AMSAT HQ
SILVER SPRING, MD AUGUST 1, 1992 BID:$ANS-214.04
TO ALL RADIO AMATEURS BT

G3RUH Explains Ground Commanding Problems With AO-13 This Week

Magnetorquing to a new attitude of 150/0 is almost completed, with two more

perigees (out of 18) to go. This operation is taking longer to implement than planned due to the present impossibility of Mode B commanding while North America is in view of the satellite. The command uplink is constantly corrupted, probably due to an "over-the-horizon" radar system operating in the 435 MHz region.

Today for example, G3RUH spent 90 minutes continuously uplinking the same command, abandoning the attempt after 100 tries. Thus at present, magnetorque and day-to-day management commands are being generated by G3RUH, but uplinked by VK5AGR at perigee. As the southern hemisphere has only a very limited visibility of AO-13, delays of 24 hours can be introduced.

Users are reminded that the solar panel illumination is presently at an all-time low of 69%. This is insufficient to support a full time transponder, the limit being 73%. Thus Mode B "ON" was temporarily reduced to MA 35-95. Users will also have noticed automatic low-battery-voltage partial shutdown (6 dB reduction of rf power output, beacon OFF) at MA 85-90 on several occasions, and sometimes complete shutdown (transponder OFF) before MA 95.

The direct cause of this automatic premature shutdown is a few stations running in excess of 20 KW eirp, easily 10-20 dB over the beacon level, and persisting even when the low power mode comes in. Please don't do this.

If the transponder suddenly goes weak, "pack it up." Meanwhile the ON period is now MA 40-95 until the illumination improves to 73% in a few day's time. The command stations gave careful thought as to whether the transponder could even be ON at all during this re-orientation, and decided it would be safe with a little transponder time, certainly better than no transponder. In a few days things will be back to normal. Be patient!

73 Graham VK5AGR, Peter DB2OS, James G3RUH 1992 July 26

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+-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-+
|               73 de James G3RUH               |
|         james.miller@mrc-apu.cam.ac.uk        |
|      StarDate: 1992 Jul 26 [Sun] 1502 utc     |
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SB SAT @ AMSAT $ANS-214.05
AO-13 OPS NET/SSTV NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 214.05 FROM AMSAT HQ
SILVER SPRING, MD AUGUST 1, 1992 BID: $ANS-214.05
TO ALL RADIO AMATEURS BT

AO-13 Operations Net Schedule & SSTV Information

AMSAT Operations Nets are planned for the following times. Mode B Nets are conducted on AO-13 on a downlink frequency of 145.950 MHz and Mode J/L on a downlink of 435.970 MHz.

Date	UTC	Mode	Phs	NCS	Alt
8-Aug-92	1900	B	65	W7NQM	W5IU
15-Aug-92	1300	B	105	WB6LLO	W9ODI
22-Aug-92	1435	J	55	WA5ZIB	WJ9F

Guest commentators are planned. Join the Net if you have questions.
In the unlikely event that either the Net Control Station (NCS) or the

alternate do not call on frequency, any participant is invited to act
as the NCS.

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Slow Scan Television on AO-13

SSTV planning sessions will follow the AMSAT Operations Nets. Fall scheduling
will require input from all interested operators. Try all AMSAT Nets for
impromptu schedules.

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